

Title (en)

AUTOMATIC ROW ALIGNMENT DRIVING SYSTEM AND METHOD FOR HIGH STEM CROP HARVESTER

Title (de)

AUTOMATISCHES REIHENAUSRICHTUNGS-FAHRSYSTEM UND VERFAHREN FÜR MASCHINEN ZUM ERNTEN VON HOCHSTÄMMIGEM ERNTEGUT

Title (fr)

SYSTÈME DE COMMANDE D'ALIGNEMENT AUTOMATIQUE DE RANGÉES ET PROCÉDÉ POUR MOISSONNEUSE DE CULTURES À TIGE HAUTE

Publication

**EP 4056020 A1 20220914 (EN)**

Application

**EP 22165608 A 20220330**

Priority

CN 202110358091 A 20210401

Abstract (en)

A system and method for automatic row alignment driving by a harvester when harvesting above-ground crops includes an elastic row sensing module (100), a processing module (200), a controlling module (300), and a steering module (400). The elastic row sensing module is disposed on a front grain thresher/grain isolator of the harvester (1000), collecting data as to physical contact with the crop (000). The elastic row sensing module (100) includes a deformable elastomer (104) in contact with the high stem crop (000), the sensor (107) detects and reports deformation of the elastomer (S510). The processing module (200) determines current alignment state of the harvester (S520) and the controlling module (300) determines any corrective steering signal for the harvester (S530). The steering module controls steering direction (S540).

IPC 8 full level

**A01D 41/127** (2006.01)

CPC (source: CN EP US)

**A01D 41/1278** (2013.01 - EP); **A01D 45/02** (2013.01 - US); **A01D 45/028** (2013.01 - CN); **A01D 57/22** (2013.01 - US);  
**B60K 35/00** (2013.01 - US); **B62D 6/001** (2013.01 - CN); **B62D 15/029** (2013.01 - US); **G05D 1/0212** (2024.01 - US); **A01B 69/008** (2013.01 - EP);  
**A01D 45/021** (2013.01 - EP); **B60K 35/28** (2024.01 - US); B60K 2360/167 (2024.01 - US); **B60K 2360/168** (2024.01 - US);  
**G06F 2218/08** (2023.01 - US)

Citation (search report)

- [X] US 2015334920 A1 20151126 - SCHLEICHER TYLER D [US], et al
- [X] US 2020053962 A1 20200220 - DIX PETER J [US], et al
- [X] EP 3620039 A1 20200311 - DEERE & CO [US]
- [X] EP 2119334 A1 20091118 - DEERE & CO [US]
- [X] EP 3092886 A1 20161116 - DEERE & CO [US]

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

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CN 112937678 A 20210611; JP 2022159174 A 20221017; US 2022317688 A1 20221006

DOCDB simple family (application)

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US 202217706820 A 20220329